

# INCLISAFE IS1

SPECIFIC FOR TRACTORS



USER MANUAL



## ABOUT THIS MANUAL

This manual contains the instructions for the INCLISAFE rollover risk warning device correct set up and use.

## BEFORE BEGINNING

1. Read these instructions and procedures carefully
2. Read the messages tagged with the Important symbol with special attention.
3. Carefully follow the set up procedure before installing the device on the tractor.

## IMPORTANT MESSAGES

Important messages tagged in this manual indicate procedures or instructions which are especially significant for the correct INCLISAFE operation; therefore they must be obligatory and carefully followed.

## HOW TO OBTAIN TECHNICAL SUPPORT AND ADDITIONAL MAINTENANCE

In case of any incidence, problem or suggestion related to the INCLISAFE device, do not hesitate in contacting us. To do so, please email us to [info@dtaebt.com](mailto:info@dtaebt.com).

For technical questions related to the technical support or the INCLISAFE guarantee, please contact us through the technical support email [soporte@dtaebt.com](mailto:soporte@dtaebt.com), or if you prefer, call us to our customer service phone number, 957-326155.

## BOX CONTENT

Inside the INCLISAFE packaging box you will find the following components:

- 1 INCLISAFE IS1 device
- 1 Jack-USB connection Cable
- 1 12V power supply cable.
- 2 CD's - INCLISOFT for Windows (32-bits and 64-bits versions)
- Velcro® for the binding to the vehicle (4x105 mm strips)
- Configurations Card
- User Manual
- INCLISAFE Configuration Manual – INCLISOFT User Manual
- Tractor Configuration Sheet.

Please verify your INCLISAFE packaging box includes all the components. If any of them was missing, please contact us as soon as possible in order to provide it to you.

## INCLISAFE FOR TRACTORS

INCLISAFE is a **UNIVERSAL ROLLOVER RISK WARNING DEVICE**. Therefore, it is designed to warn you about the instability situations that occur while you are driving your tractor. The INCLISAFE alarm will be more consistent as the instability and the rollover risk increase.

### WORKING PRINCIPLE

The big problem regarding tractor safety is the fact that they can roll quite easily. Moreover, **the real rollover limit angle changes in every instant, as a function of the velocity and the terrain conditions**. Due to this, many rollover accidents occur unpredictably when working on slopes that are lower than the theoretical tractor limit lateral slope.

**INCLISAFE takes into account not only the angles, but also the vibrations and the terrain bumps, in order to calculate the tractor stability and warn you in case of rollover risk.**

For example, if you slowly drive over a stone and it does not involve any risk, INCLISAFE won't warn you, but if you drive over the same stone with a higher speed, INCLISAFE will warn you about the instability produced. And if you drive over it with an even higher speed, the INCLISAFE alarm will increase its frequency. In this way, you can learn about the situations that involve tractor instability, knowing that if you increase the speed or the terrain becomes bumpier, a rollover could occur.

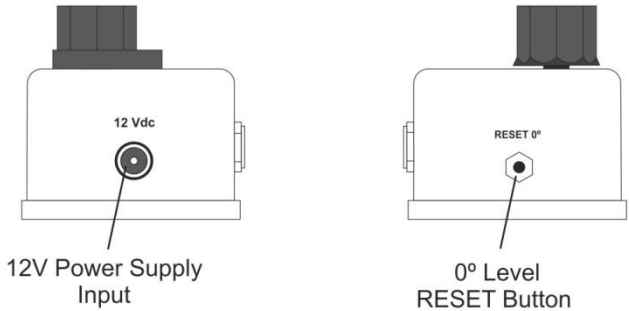
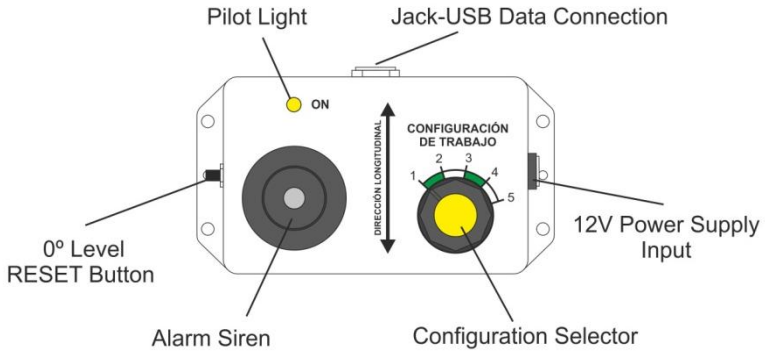
The INCLISAFE alarm works with a frequency increasing horn. **The alarm frequency increases along with the instability, reaching a continuous sound alarm in case of imminent rollover.**

ALARM LEVELS	HORN FREQUENCY	MEANING	MEASURE TO TAKE
1	1 beep/second	Punctual Instability - Bump	None – If driving faster, it will involve instability risk
2	2 beeps/second	Low instability	Slightly reduce speed
3	4 beeps/second	High Instability	Drastically reduce speed. Drive towards a lower slope area.
4	Constant alarm	Imminent Rollover	Drastically reduce speed. Drive towards a lower slope area.

### USE INDICATIONS

As explained, INCLISAFE measures not only the inclination, but also the dynamics of the vehicle, that is, the effect of the bumps and the speed on the tractor. This implies that INCLISAFE will emit the alarm when it detects hard bumps, indicating that these bumps involve a stability loss. Therefore you should avoid them or drive at a lower speed around these bumpy areas.

**PARTS AND COMPONENTS**



**Alarm Siren**

The alarm siren emits the sound that will warn you in case the INCLISAFE detects any sort of instability, which could lead to a tractor rollover. In order to learn more about the alarm sound levels, go to paragraph WORKING PRINCIPLE.

**Configurations Selector Switch**

The 5 positions selector allows changing the internal INCLISAFE configuration during working time. Further forward in this manual you will learn how to load up to 5 working configurations on the INCLISAFE, for each of which you will be able to choose among several tractor accessories, implements and counterweights. Thanks to this, if you change your tractor implement you just have to switch the selector to the proper position, and INCLISAFE will be automatically configured for this new weight distribution.

### 0° Level Reset Button

This button is used to re-calibrate the INCLISAFE device to a horizontal reference, in case of a non-horizontal installation on the tractor. Its functionality is explained further forward, in the paragraph INCLISAFE INSTALLATION

### 12V Power Supply Connection

Power input connection for the 12V power supply cable. This cable is provided with the classical 12V plug for the most common 12V connection inside tractor cabins.

### Pilot Light

The INCLISAFE pilot light changes to yellow when connecting the INCLISAFE to the 12V power source. On the other hand, it becomes orange when plugging the INCLISAFE device to a PC through the USB cable, in order to load the tractor data using the INCLISOFT software.

### Configurations Card

This card, supplied with the INCLISAFE device, is provided to write down the working configurations you load in it, so that you know which one is assigned to each selector switch position. You can attach it to your device or place it anywhere inside your tractor cabin.

## INCLISAFE INSTALLATION

In order to achieve a correct operation of the INCLISAFE device, it is important to configure it properly; in this way the device will know, at each moment, in which working conditions the tractor is.

As your might already know, the tractor behavior varies a lot as a function of its implements and working tools. INCLISAFE is designed to take into account these variations, but it needs to be configured correctly with this purpose.

Steps to follow to achieve a correct INCLISAFE configuration:

#### Tractor data.



The first step is to know the tractor weight and dimensions. To do so, INCLISOFT software has a database with the data of more than 1000 tractor models. If your tractor is not in this database, refer to your tractor user manual in order to find the data needed. Moreover, the required basic dimensions can be measured on the tractor itself.



#### 1) Implements and accessories data.

In order to correctly configure the INCLISAFE device, it is necessary to define the implements weight and position as accurate as possible. To do so, fill in the Tractor Configuration Sheet, in which you can find all the dimensions needed. You will find inside the INCLISAFE packaging box. All of these dimensions and distances are the ones that the INCLISOFT software will require in order to configure the INCLISAFE properly. Moreover, you will find the implement weight indicated on its characteristics plate and its user manual.

2) Configure your INCLISAFE device using the INCLISOFT software provided. Read the INCLISOFT Installation and User Guide that you will find inside the INCLISAFE packaging box.

## INSTALLING THE INCLISAFE ONBOARD

The INCLISAFE device installation inside the tractor cabin is very simple. Follow these steps:

- 1) Find a nearly horizontal surface inside the tractor cabin. It does not need to be completely horizontal, since the device allows for a  $\pm 10^\circ$  maximum installation inclination. INCLISAFE is usually installed below the driver's seat or even behind it.
- 2) Clean the surface with a wet cloth, and dry it carefully. In this way, the maximum adhesive strength is achieved by the Velcro® adhesive.

### **IMPORTANT**

- 3) Place the INCLISAFE device on the chosen surface. The device orientation is quite important. It has to be placed in a way that the arrow on the INCLISAFE surface is oriented along with the longitudinal direction of the tractor. Use the provided Velcro® strips to fix the device to the horizontal surface.
- 4) Connect the 12V power supply cable to the 12V power supply output inside your tractor cabin. Afterwards, connect the power supply cable to the INCLISAFE input connection. After an instant, you will hear a beep. This beep means the INCLISAFE device is properly installed.

Important: If INCLISAFE is installed with an inclination higher than  $10^\circ$ , you will hear an intermittent beep when you plug it in, which won't stop until it is unplugged. This means that you have to install the device on a more horizontal surface.

### **IMPORTANT**

- 5) Once the INCLISAFE device is plugged in, you need to re-calibrate the device so that it takes the installation position as the tractor horizontal reference. To do so, press and keep pressed the RESET button for a few seconds, until you hear a short beep sequence. This means the device has been re-calibrated correctly.

If you have gone through these steps correctly, you now can start working with your tractor using the INCLISAFE device.

### **IMPORTANT**

REMEMBER: INCLISAFE measures not only the inclination but also the dynamics, the effect of the bumps on the tractor. This implies that INCLISAFE will emit the alarm when it detects hard bumps, indicating that these bumps involve a stability loss. Therefore you should avoid them or drive at a lower speed around these bumpy areas.

### **USE ADVICES, CAUTIONS AND WARNINGS**

We recommend re-calibrating the INCLISAFE device every 40 hours of use, or after a long period of non-use. This will make the device behavior to be as expected even if it has been slightly moved or inclined.

Do not place the INCLISAFE device anywhere near your ear.

### **PROBLEMS**

In case the INCLISAFE device does not behave correctly:

1. Check that the configurations selector switch corresponds to the working mode and implements on the tractor.
2. Re-calibrate the device, using the RESET button.
3. Re-Configure the INCLISAFE device using the INCLISOFT software provided, carefully checking each configuration. Check that the implements weights and measures are correct.
4. If you keep having problems or doubts, please contact us and we will help you solve the problem.

### **GUARANTEE**

INCLISAFE is under a 2 year guarantee covering manufacturing defects. For a better management of the guarantee conditions and client support, we strongly recommend to register in our website, [www.dtaebt.com](http://www.dtaebt.com). You will be asked about your basic info, like your tractor model, dealer you bought the device from, device serial number, etc. In this way it will be much easier for us to help you in case you contact us.

In case you don't have an internet connection available, contact us by telephone and we will make the registration for you.

### **RESPONSABILITY EXEMPTION**

The INCLISAFE device is a rollover risk WARNING device. As explained along this manual, it requires an accurate device configuration in order to perform correctly, and the final user is in charge of this configuration. For this, DTA EBT is not responsible for the device wrong functioning due to an inaccurate INCLISAFE configuration.

Moreover, DTA EBT does not take responsibility for the device improper use or the lack of attention the tractor driver pays to the device alarm. It is the tractor driver sole responsibility to pay attention and follow the INCLISAFE alarm indications, in order to avoid rollover risk situations, since the INCLISAFE device will never act on the tractor direction or guidance.

Therefore, it is important to remark that the INCLISAFE device does not substitute any sort of tractor security element or rollover protection systems, such as ROPS.

For all of this, DTA EBT does not take any responsibility for the incidents or accidents involving a tractor rollover in which the INCLISAFE device was installed onboard. It is the tractor driver sole responsibility to take the necessary preventive measures (speed reduction, direction change) when the rollover risk warning alarm is heard.

### CE HOMOLOGATION

INCLISAFE fulfills the European CE Standards regarding Product Safety and Electromagnetic Compatibility (2001/95/CE y 72/245/CEE).

### ENVIRONMENTAL ISSUES

INCLISAFE is a Environment-friendly device. It is manufactured under RoHS standards in order to guarantee the non use of products that could harm the environment.

Moreover, in order to guarantee that the INCLISAFE device does not harm the Environment during its entire life cycle, DTA EBT has established a waste management policy, in which we ask INCLSAFE users to contact us if they do not use the device anymore, instead of throwing it away. In this case, we will pick it up from you for free, and proceed to its complete recycling.



### THE COMPANY

Desarrollo Tecnológico Agroindustrial E.B.T. S.L. (DTA EBT) is a young company, but involving people with a wide and deep experience in engineering. DTA EBT focuses on research, innovation and development of products and technological services for the agro-industrial sector.



In order to meet the current and future needs of the agro-industrial sector, we research, develop and offer innovative technological solutions at affordable prices, so that they improve companies' competitiveness, profitability and productivity.

More about us: [www.dtaebt.com](http://www.dtaebt.com)

More about INCLISAFE: [www.inclisafe.com](http://www.inclisafe.com)

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